

G O D W I N G R U B E R

12-11-02

2823

GARY C. HONEYCUTT
Direct Dial: 214.939.8651
ghoneycutt@godwingruber.com

Attorneys
A Professional Corporation

Renaissance Tower
1201 Elm Street, Suite 1700
Dallas, Texas 75270
214.939.4400
214.760.7332 Fax

December 10, 2002

godwingruber.com

VIA USPS EXPRESS MAIL
Mailing Label No. EV225100098US

Commissioner for Patents
and Trademarks
Washington, D.C. 20231

RECEIVED
DEC 13 2002
TECHNOLOGY CENTER 2800

Re: Patent Application for:
"Method for Annealing Ultra-thin, High Quality Gate Oxide Layers
Using Oxidizer/Hydrogen Mixtures"
Serial No.: 09/885,744
Attorney Docket: TI-32705
Our File: 50000.2188

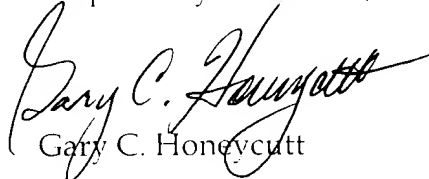
Dear Sir:

Enclosed for filing please find the following items relating to the above-identified application:

- (1) Amendment Pursuant to 37 CFR § 1.115;
- (2) Replacement Pages; and
- (3) Postcards.

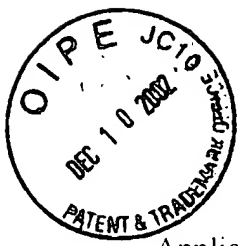
Please return the date-stamped postcards to the corresponding addresses as indicated. In the meantime, if you have any questions or comments concerning this matter, please call the undersigned. Otherwise, please accept the enclosed.

Respectfully submitted,


Gary C. Honeycutt

GCH:glc
Enclosures

cc: W. James Brady, III (Texas Instruments Incorporated, w/ encls.)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Niimi et al.

Examiner: Khiem D. Nguyen

Serial No.: 09/885,744

Docket: TI-32705

Filed: 06/20/01

For: **METHOD FOR ANNEALING ULTRA-THIN, HIGH QUALITY GATE
OXIDE LAYERS USING OXIDIZER/HYDROGEN MIXTURES**

#8/Amor
A
1/7/03
✓ Short

AMENDMENT PURSUANT TO 37 CFR 1.115

VIA USPS EXPRESS MAIL

Mailing Label No. EV225100098US

Commissioner for Patents
and Trademarks
Washington, D.C. 20231

"EXPRESS MAIL" Mailing Label No. EV225100098US
Date of Deposit: December 10, 2002

I hereby certify that this correspondence is being deposited with
the U.S. Postal Service "Express Mail Post Office to Addressee"
under 37 CFR 1.10 on the date shown above and is addressed to
the Commissioner for Patents and Trademarks, Washington, D.C.
20231.

Ginger Cox
Ginger Cox

Sir:

Responsive to the Office Action of September 11, 2002, please amend the application as follows.

IN THE CLAIMS

In Claim 1, lines 11-12, delete "an oxidizer and hydrogen" and insert -- a -- lines 13-14, delete "at minimum oxidation rate"; line 13, after "damage," insert a comma -- , --.

REMARKS

Favorable reconsideration and allowance of the application are respectfully requested, in view of the above amendments and the following comments.

The rejection of claims 1-13 as unpatentable over Kraft et al. in view of Weimer et al., Park, and Park et al. is respectfully traversed because the references fail to disclose or suggest Applicants'

RECEIVED
DEC 13 2002
TECHNICAL CENTER 2800

invention, as defined by the claims. Note first of all that Kraft et al. does not disclose or suggest uniform nitrogen distribution throughout the oxygen layer, contrary to the Examiner's characterization of the reference. Instead, Kraft et al. clearly shows in Figures 5-8 that the distribution of nitrogen is not uniform. Moreover, there is no hint anywhere in the reference that uniform distribution would be desirable.

Weimer et al. is also clearly misconstrued or misinterpreted in the Office Action. The reference does not show any annealing or reoxidation of an oxide layer. Instead, the reference shows reoxidation of source-drain regions 108 A and 108 B.

Moreover, the Weimer process has nothing to do with the addition of nitrogen to an oxide layer, and is therefore unrelated to the Kraft et al. process. Therefore, no logical basis exists for adding the Weimer reoxidation step to Kraft et al.

Still further, it is improper to speculate upon any inherent result that could follow from adding Weimer to Kraft, since there is no rational basis for the Examiner's proposed combination. The law does not condone rejections based upon inherent results, when the references include no suggestion of Applicants' inventive concept or purpose, and no suggestion of Applicants' results.

Still further, the Weimer reoxidation step does not include the use of N_2O plus H_2 , nor any equivalent mixture, as required by Applicants' claims. Therefore, even if there were a basis for adding Weimer to Kraft, the combination would not (even inherently) meet the terms of Applicants' claims; and would not achieve Applicants' results (even inherently).

The addition of Park to show ultra-thin oxides is moot, since both Kraft and Weimer are clearly mischaracterized by the Examiner; and improperly combined.

The addition of Park et al. to show a capacitor is also moot, in view of the many flaws in the rationale for combining Kraft and Weimer.

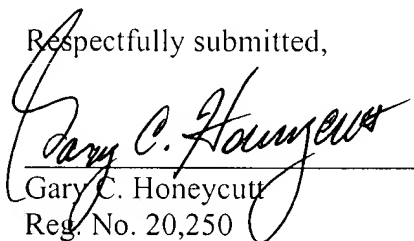
The Examiner's further rejection of claims 5-6 as mere optimization of the Weimer reoxidation is totally improper. The issue of optimization cannot arise when Applicants' purpose

for reoxidation is totally missing from the cited art. Still further, Applicants' mixture of N₂O and H₂ is not suggested in the art, so "optimization" is not an issue. One skilled in the art cannot "optimize" a process that does not exist in the prior art!

For all the above reasons, the rejection is improper and should be withdrawn.

Applicants now believe the application is in condition for allowance.

Respectfully submitted,



Gary C. Honeycutt
Reg. No. 20,250

Dated: December 10, 2002

Attorneys for Applicant
Godwin Gruber, P.C.
Renaissance Tower
1201 Elm Street, Suite 1700
Dallas, Texas 75270-2084
Phone - 214.939.8651
Fax - 214.760.7332